

CLAIMS

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2 1. A method in a computer system for dynamically creating a
3 schedule of timeslot segments for a plurality of routes and timeslots, the method
4 comprising:

5 determining from a calendar, a set of possible route types for a
6 selected day and a template identifier;

7 based upon the determined set of possible route types, retrieving a set
8 of available route types from a template identified by the template identifier,
9 wherein the available route types are also members of the set of possible route types;
10 for each available route type, determining a set of routes for the
11 selected day;

12 for each set of routes, creating in a data repository a set of schedulable
timeslot segments that correspond to the selected day.

1 2. The method of claim 1, further comprising for each set of
2 routes, determining a set of timeslots, wherein a portion of the set of schedulable
3 timeslot segments are created to correspond to each timeslot.

1 3. The method of claim 2 wherein the number of created
2 schedulable timeslot segments that correspond to each timeslot are based upon a
3 potential number of timeslot segments associated with each timeslot.

1 4. The method of claim 2, further comprising:
2 modifying the template such that data that corresponds to at least one
3 of the set of timeslots for the selected day are changed; and
4 updating the created set of schedulable timeslot segments in the data
5 repository to correspond to the changed data.

1 5. The method of claim 1 wherein the template identifier identifies
2 one of the days of a week.

1 6. The method of claim 1 wherein a schedulable timeslot segment
2 corresponds to a delivery stop.

1 7. The method of claim 1 wherein a schedulable timeslot segment
2 corresponds to an event.

1 8. The method of claim 1 wherein the selected day is a date in the
2 future.

1 9. The method of claim 8 wherein the method is used to create
2 schedulable events for a sequence of days in the future.

1 10. The method of claim 1 wherein the schedulable timeslot
2 segments are sent to another program to be allocated to actual events.

1 11. The method of claim 10 wherein the actual events are
2 scheduled delivery orders.

1 12. The method of claim 1 wherein the set of possible route types
2 indicates that no routes are available for the selected day.

1 13. The method of claim 1 wherein the set of possible route types
2 indicates a holiday schedule is available for the selected day.

1 14. The method of claim 1 wherein each route is based upon
2 geographical data.

1 15. The method of claim 1, further comprising:
2 modifying the template such that data that corresponds to at least one
3 of the set of routes for the selected day are changed; and
4 updating the created set of schedulable timeslot segments in the data
5 repository to correspond to the changed data.

1 16. The method of claim 1, further comprising using the
2 determined set of routes to automatically generate in the data repository a set of
3 schedulable timeslot segments that correspond to a different day.

1 17. A computer-readable memory medium containing instructions
2 for controlling a computer processor to dynamically create a schedule of timeslot
3 segments for a plurality of routes and timeslots by:

4 determining from a calendar, a set of possible route types for a
5 selected day and a template identifier;

6 based upon the determined set of possible route types, retrieving a set
7 of available route types from a template identified by the template identifier,
8 wherein the available route types are also members of the set of possible route types;

9 for each available route type, determining a set of routes for the
10 selected day;

11 for each set of routes, creating in a data repository a set of schedulable
12 timeslot segments that correspond to the selected day.

1 18. The computer-readable memory medium of claim 17, further
2 comprising for each set of routes, determining a set of timeslots, wherein a portion
3 of the set of schedulable timeslot segments are created to correspond to each
4 timeslot.

1 19. The computer-readable memory medium of claim 18 wherein
2 the number of created schedulable timeslot segments that correspond to each
3 timeslot are based upon a potential number of timeslot segments associated with
4 each timeslot.

1 20. The computer-readable memory medium of claim 17 wherein a
2 schedulable timeslot segment corresponds to a delivery stop.

1 21. The computer-readable memory medium of claim 20 wherein a
2 schedulable timeslot segment is allocated to an order to delivery groceries.

1 22. The computer-readable memory medium of claim 17 wherein a
2 schedulable timeslot segment corresponds to a delivery stop that is used by an
3 electronic storefront program to schedule a delivery of a product or service.

1 23. The computer-readable memory medium of claim 17 wherein
2 the set of schedulable timeslot segments supports the scheduling of a delivery of a
3 product a plurality of days into the future.

1 24. A computer-based home delivery scheduling system
2 comprising:
3 a data repository;

4 a set of routines for automatically creating in the data repository
5 scheduled timeslot segments for each timeslot, for each route, for a designated
6 calendar day, based upon a template and a calendar system that indicates available
7 routes, timeslots, and numbers of potential timeslot segments per timeslot subject to
8 the available routes being permissible on a particular calendar day; and
9 a user interface for displaying and modifying scheduling data stored in
10 the data repository by invoking the set of routines.

1 25. The scheduling system of claim 24 wherein the available
2 routes, timeslots, and numbers of potential timeslot segments per timeslot are
3 grouped by day of week.

1 26. The scheduling system of claim 24 wherein the user interface
2 comprises a collection of database forms.

1 27. The scheduling system of claim 24 wherein the elements
2 comprise a database system.

1 28. The scheduling system of claim 24 wherein a scheduled
2 timeslot segment for a timeslot, for a route, for a designated calendar day that was
3 created in the data repository is allocated to an order for a product or service.

1 29. The scheduling system of claim 24 wherein a scheduled
2 timeslot segment for a timeslot, for a route, for a designated calendar day that was
3 created in the data repository is allocated to a particular customer.

1 30. The scheduling system of claim 29 wherein a timeslot segment
2 is allocated to the particular customer based upon a rating system.

1 31. A method in a computer system for dynamically modifying a
2 schedule for a plurality of timeslots and routes, the method comprising:
3 determining a plurality of timeslots for a plurality of routes for a
4 designated time period;
5 for a timeslot, creating in a data repository at least one schedulable
6 event;
7 allocating the schedulable event to an order;
8 displaying indications of the plurality of routes, timeslots, and the
9 allocated event; and
10 in response to receiving an instruction to increase the number of
11 events for the timeslot, creating in the data repository another schedulable event for
12 the timeslot.

1 32. The method of claim 31, further comprising performing an alert
2 when the schedulable event is allocated to the order.

1 33. The method of claim 32 wherein the alert indicates that the
2 allocated event is within a designated number of schedulable events.

1 34. The method of claim 32 wherein the instruction to increase the
2 number of events for the timeslot is indicated manually by a user.

1 35. The method of claim 32 wherein the instruction to increase the
2 number of events for the timeslot is generated automatically.

1 36. The method of claim 32, further comprising automatically
2 reallocating the order to a different schedulable event.

1 37. A computer-readable memory medium containing a delivery
2 schedule in the form of structured data that is manipulated by a computer processor
3 under control of a computer program, the structured data being stored in the memory
4 medium as:

5 a table of calendar days, each day associated with zero or more route
6 types;

7 a collection of zero or more routes, each associated with a route type
8 and a day of the week;

9 a collection of timeslots, where zero or more timeslots are associated
10 with each route, each timeslot having a count of potential timeslot segments; and

11 a collection of zero or more scheduled timeslot segments for one or
12 more calendar days, wherein the scheduled timeslot segments for a calendar day are
13 created by the computer program by retrieving route type information from the table
14 of calendar days and combining the retrieved route type information with the
15 collection of zero or more routes and the collection of timeslots to determine a set of
16 scheduled timeslot segments for each timeslot that corresponds to the calendar day.

1 38. The computer-readable memory medium of claim 37, the
2 collection of zero or more scheduled timeslot segments each having associated
3 locating information and order information.

1 39. The computer-readable memory medium of claim 38 wherein
2 the locating information is geographic data.

1 40. The computer-readable memory medium of claim 37 wherein
2 the collection of zero or more scheduled timeslot segments for one or more calendar
3 days is associated with a distribution facility.

